CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 76-9

WASTE DISCHARGE REQUIREMENTS FOR:

City of Berkeley and Berkeley Landfill
Company Solid Waste Class II-2 Site
Alameda County

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. The Berkeley Landfill Company operates a solid waste disposal site on land owned by the City of Berkeley. On March 13, 1969 the Board adopted waste discharge requirements for this site for the City of Berkeley and the Berkeley Landfill Company, hereinafter called the discharger. On October 23, 1969 the Board adopted a Cease and Desist Order for violation of waste discharge requirements. Because of changes in the California Administrative Code and problems identified at the site, the discharger was requested to file a revised report of waste discharge, and this was done on October 9, 1975.

2. The Berkeley landfill was begun in the early 1900's and covers most of the Berkeley shoreline as shown in Attachment A. The area under the discharger's control covers about 45 acres, and is located adjacent to San Francisco Bay and the Berkeley Marina, as shown in Attachments A and B. The site is bounded on the north, east, and west by levees, and on the south by Spinnaker Way. Attachments A and B are incorporated herein and made a part of this Order.

3. All but about six acres of the site have been previously filled. The landfill receives about 3000 cubic yards of uncompacted group 2 and 3 wastes daily. The expected operational life of the site is about four or five years.

4. This landfill site, subsequent to modifications required to comply with this Order, will meet the criteria contained in the California Administrative Code, Title 23, Chapter 3, Subchapter 15, for classification as a Class II-2 disposal site suitable to receive Group 2 and Group 3 wastes.

5. The beneficial uses of San Francisco Bay are:

   a. Habitat and resting for waterfowl
   b. Fish habitat
   c. Recreation
   d. Esthetic enjoyment
   e. Industrial water supply

3. The disposal area(s) shall be protected from any washout or erosion and from inundation, which could occur as a result of tides or floods having a predicted frequency of once in 100 years.

4. Vertical and lateral hydraulic continuity with adjacent surface or groundwaters shall be prevented by the presence of natural or artificial impervious barrier that has a permeability of 10^{-6} cm/sec or less.

5. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources shall not contact or percolate through Group 2 wastes during disposal operation and for the active life of the site.

6. All completed disposal area(s) shall be covered, and exterior surfaces shall be graded to promote lateral runoff of precipitation and to prevent ponding.

7. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

C. Prohibition

The discharge of ponded water behind the levees to waters of the State is prohibited.

D. Provision

1. The discharger shall comply immediately with all sections of this Order except B.1., B.3, B.4 and C.

2. The discharger shall submit a report no later than April 1, 1976 describing the status of compliance with Sections B.3 and B.4 of this Order. If compliance is not currently being achieved, plans and time schedules shall be submitted for achieving compliance.

3. The discharger shall comply with the following time schedules to assure compliance with B.1 and C.:

Task	Report of Compliance Due
Submit conceptual plan	March 1, 1976
Full compliance	July 1, 1976

4. No later than March 1, 1976 the discharger shall submit to the Regional Board a detailed plan for site operation, to include the following:

   a) Location of current active disposal areas.

   b) Location of future disposal areas and schedule of expected utilization.

   c) A site operation manual, to include site management, construction and maintenance of haul roads, methods for deposition, compaction and covering of wastes, site maintenance and other operation procedures.

5. The discharger shall maintain a copy of this Order at the site so as to be available at all times to site operating personnel.

6. The discharger shall file with this Board a report of any material change or proposed change in the character, location, or quantity of this waste discharge. For the purpose of these requirements, this includes any proposed change in the boundaries, contours, or ownership of the disposal area(s).

7. This Board's Resolution No. 69-13 is hereby rescinded.

8. Ninety (90) days prior to discontinuing use of the landfill for waste disposal, the discharger shall submit a site closure plan, to include a description of anticipated land use after termination of disposal operations, and a technical report describing the methods and controls used to assure protection of the quality of surface and groundwaters of the area during final operations and during any subsequent use of the land. This report shall be prepared by or under the supervision of a registered engineer or a certified engineering geologist. The method used to close the site and maintain protection of the quality of the surface and groundwaters shall comply with waste discharge requirements established by the Regional Board as contained in this Order.

9. This Board considers the property owner to have a continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge or water applied to this property during subsequent use of the land for other purposes.

10. The discharger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Program which may be directed by the Executive Officer.

11. The discharger shall permit the Regional Board:

    a. Entry upon premises on which wastes are located or in which any required records are kept,

    b. Access to copy any records required to be kept under terms and conditions of this Order,

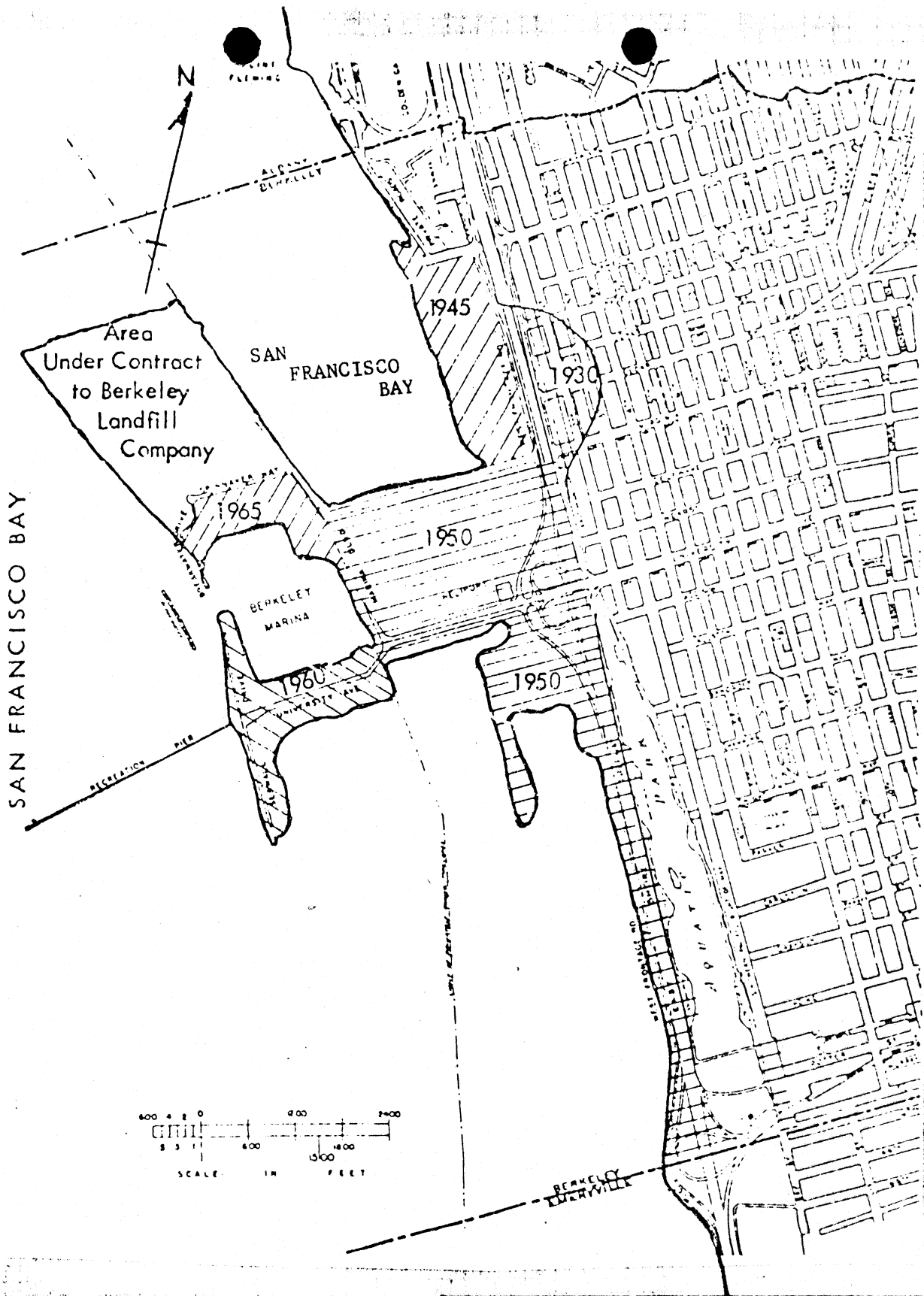
    c. Inspection of monitoring equipment or records, and

    d. Sampling of any discharge.

I, Fred H. Dierker, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 20, 1976.

FRED H. DIERKER
Executive Officer

Attachments:
Attachment A - Map
Attachment B - Map



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

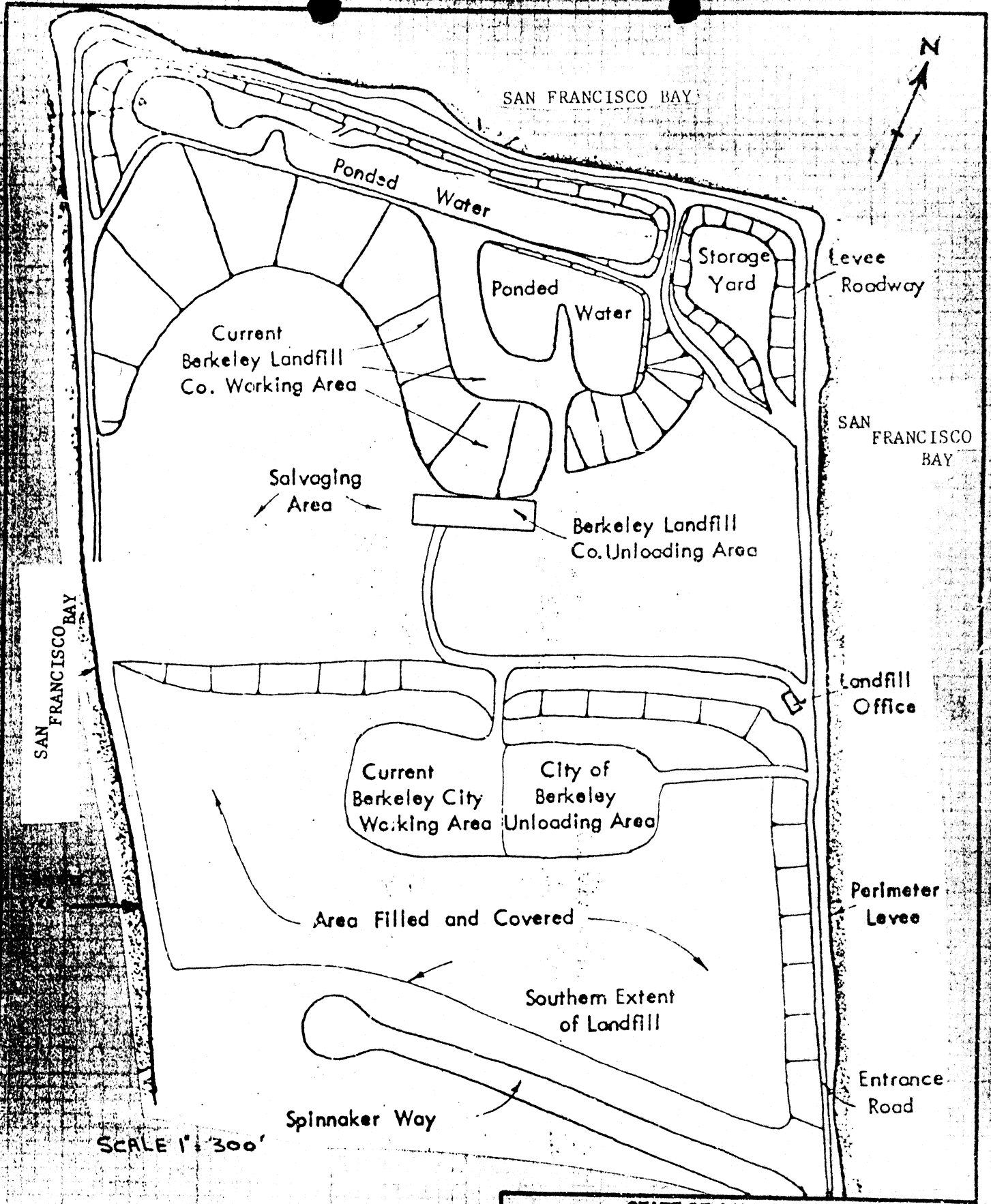
BERKELEY LANDFILL
ALAMEDA COUNTY

LOCATION OF THE LANDFILL

" "

ATTACHMENT A ORDER NO. _____

DRAWN



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

BERKELEY LANDFILL, ALAMEDA CO

MAP SHOWING THE PERIMETER LEVEE, ACTIVE AREA, PONDED WATER

ATTACHMENT "B" ORDER NO.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REVISED SELF-MONITORING PROGRAM
FOR

City of Berkeley

Class II-2 Solid Waste Disposal Site

Berkeley, Alameda County

ORDER NO. 76-9

SMP CONSISTS OF

PART A

AND

PART B

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REVISED SELF-MONITORING PROGRAM

FOR

CITY OF BERKELEY
CLASS II-2 SOLID WASTE DISPOSAL SITE
BERKELEY, ALAMEDA COUNTY

PART A

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as self-monitoring program, are: (1) to document compliance with waste discharge requirements and prohibitions established by this Regional Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the latest edition of Standard Methods for the Examination of Water and Wastewater prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, or other methods approved and specified by the Executive Officer of this Regional Board, including the methods specified in attached APPENDIX E.

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health or a laboratory approved by the Executive Officer. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. Grab sample means a sample collected at any time.

2. Standard Observations

a. Receiving Water of San Francisco Bay and Periphery of Disposal Facilities

(1) Discoloration and turbidity: description of color, source, and size of affected area.

(2) Odor: presence or absence, characterization, source, and distance of travel.

(3) Evidence of beneficial water use: presence of water-associated wildlife, fishermen, and other recreational activities in the vicinity of the sampling stations.

(4) Hydrographic condition:

(a) Water and sampling depths.

(b) Tidal conditions.

(5) Weather condition:

(a) Wind - direction and estimated velocity.

(b) Precipitation - total precipitation during the previous five days and on the day of observation.

b. Land Retention or Disposal Area

This applies both to liquid and solid wastes confined or unconfined.

(1) Determine height of the freeboard at lowest point of dikes confining liquid wastes.

(2) Evidence of leaching liquid from area of confinement and estimated size of affected area. (Show affected area on a sketch.)

(3) Odor: presence or absence, characterization, source, and distance of travel.

(4) Estimated number of waterfowl and other water-associated birds in the disposal area and vicinity.

D. SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

The discharger is required to perform observations, sampling, and analyses according to the schedule in Part B with the following conditions:

E. RECORDS TO BE MAINTAINED

1. Written records shall be maintained at the landfill site or office and shall be retained for a minimum of 3 years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board. Such records shall show the following for each sample:

   a. Identity of sampling and observation stations by number.

   b. Date and time of sampling and/or observations.

   c. Date and time that analyses are started and completed, and name of personnel performing the analyses.

   d. Complete procedure used, including method of preserving sample and identity and volumes of reagents used. A reference to specific section of Standard Methods is satisfactory.

   e. Calculations of results.

   f. Results of analyses and/or observations.

F. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Written reports shall be filed for each calendar month (unless specified otherwise in Part B) by the fifteenth day of the following month. In addition, an annual report shall be filed as indicated in F-1-f. The reports shall be comprised of the following:

   a. Letter of Transmittal:

      A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken or planned for correcting violations, such as plant operation modifications and/or plant facilities expansion. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

Monitoring reports shall be signed as follows:

(1) In the case of corporations, by a principal Executive Officer at the level of vice-president or his duly authorized representative if such representative is responsible for the overall operation of the facility from which the discharge originates,

(2) In the case of a partnership, by a general partner, or

(3) In the case of a sole proprietorship, by the proprietor,

(4) In the case of a municipal, State, or other public facility, by either a principal Executive Officer, ranking elected official, or other duly authorized employee.

b. Compliance Evaluation Summary

Each report shall be accompanied by a compliance evaluation summary sheet prepared by the discharger. The report format will be specified by the Regional Board.

c. Map or Aerial Photograph

A map or aerial photograph shall accompany the report showing sampling and observation station locations.

d. Results of Analyses and Observations

Tabulations of the results from each required analysis specified in Part B by date, time, type of sample, and station, signed by the laboratory director. In addition a summary tabulation of the data to include for each constituent the total number of analyses, maximum, minimum, and average values for each month. The report format will be specified by the Regional Board.

e. List of Approved Analyses

(1) Listing of analyses for which the discharger is approved by the State Department of Health.

(2) List of analyses performed for the discharger by another approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

f. Annual Reporting

By February 1 of each year, the discharger shall submit an annual monitoring report to the Regional Board covering the previous calendar year. The report shall contain:

1. Tabular summaries of the monitoring data obtained during the previous year.

2. Comprehensive discussion of the compliance record and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements.

3. A map showing the area in which filling has been completed during prior calendar year.

PART B

I. DESCRIPTION OF SAMPLING STATIONS & SCHEDULE OF SAMPLING, ANALYSES & OBSERVATIONS

A. WASTE MONITORING

1. Monthly, record the total volume and weight of a refuse (in cubic yards and tons) deposited on the site during the month, and the daily average. Report quarterly.

2. Monthly, record the volume of fill completed, in cubic yards, showing the location(s) and dimensions on a sketch or a map. Report quarterly.

(The monthly records shall be maintained at the landfill office. Weight of the refuse shall be estimated.)

B. ON SITE OBSERVATIONS

Station	Description
S-1 thru S-'n'	Observation stations located on any past or presently active portion of the waste site at grid squares delineated by a 500 foot grid network.

Station	Frequency of Observation & Reporting	Observations
All S Stations in active disposal areas	Observations weekly throughout the year. Report Quarterly.	For all S Stations: 1. Evidence of ponded water at any point on the disposal site. 2. Evidence of refuse not confined within a cell or parcel. 3. Evidence of erosion or "day-lighted" refuse. 4. Evidence of waste in contact with ponds of surface water. 5. Evidence and estimated size of leachate or seepage streams entering or leaving the disposal area.
All other "S" stations in in-active areas	Weekly observation during November 1st thru March 31st and monthly the rest of the year. Report Quarterly	

C. PERIMETER OBSERVATIONS

Station	Description
P-1 thru P-'n'	Stations shall be located at approximately 500 foot intervals along the dike exterior and shall include points at each end of the three betonite slurry filled trenches.

Station	Observation and Reporting Frequency	Observations
P-1 thru P'n'	Observations weekly at low tide during November 1st thru March 31st and monthly the rest of the year. Report Quarterly. In addition, the entire northerly, westerly and easterly exterior dike shall be inspected once each quarter and reported quarterly at the lowest day-light, weekday tide of the quarter for the three observation catagories. This inspection may be substituted for a P station inspection. Tide level and time of observations are to be recorded and reported quarterly.	1. Evidence of erosion or 'daylighted' refuse. 2. Evidence of leachate or seepage entering or leaving the site. Approximate size of leachate stream and area affected. See also Part B, Section D & E. 3. Presence of odors including their characteristics, intensity, source, distance of travel.

D. SEEPAGE AND/OR LEACHATE DISCHARGE MONITORING

Station	Description
L-1 thru L-'n'	Each discharge point from the disposal area to the adjacent surface waters. Include map indicating locations of discharge.

Station	Type of Sample and Frequency	Analyses	Units
All 'L' stations	Daily, during each occurrence Report monthly.	Dissolved sulfide	mg/l
		Odors	Description
		Color	Description
		pH	Electrometric Units
		TOC	mg/l
		conductivity	micromhos/cm

A report shall be made by telephone of any seepage or leachate leaving the property immediately after occurrence. A written report shall be filed with this Board within five days and shall contain the following information: (1) Map showing location(s) of discharge (2) Flow rate (3) Nature of effect (i.e. discoloration of receiving water, size of affected area) and (4) Corrective measures undertaken.

E. RECEIVING WATER

Receiving water stations analysis shall coincide with the leachate stations when a discharge occurs.

Station	Description
C-1 thru C-'n'	Located in the receiving water downstream of and within 5 feet of each point of discharge.
CR-1 thru CR-'n'	Located in the receiving water, 50 feet upcurrent from each point of discharge.

Station	Type of Sample and Frequency	Analyses	Unit
All C Stations	Daily, during discharge coincident with sampling at "L" stations. Report monthly.	D. O.	mg/l
		Total Sulfide	mg/l
		Dissolved Sulfide	mg/l
		pH	electrometric units
		Odors	description
		Color	description

F. GROUNDWATER AND PEIZOMETRIC MONITORING

Station	Description
G-1 thru G-8	Existing monitoring wells located inside the perimeter levee as shown on Attachment A and as described below.
G-1	Formerly referred to as G-11 by the City of Berkeley
G-2	Formerly referred to as G-9 by the City of Berkeley
G-3	Formerly referred to as G-7 by the City of Berkeley
G-4	Not previously monitored
G-5	Not previously monitored
G-6	Formerly referred to as G-5 by the City of Berkeley
G-7	Formerly referred to as G-3 by the City of Berkeley
G-8	Formerly referred to as G-1 by the City of Berkeley

Station	Sampling and Reporting Frequencies	Type of Analyses
G-1 thru G-8	To be sampled and reported Quarterly.	The water level in each well shall be recorded continuously during a 48 hour period. Wells may be monitored either simultaneously or sequentially over the reporting period.

High and low tide levels and weather conditions at the time of sampling shall be recorded and reported.

Additional monitoring wells or analyses may be required if monitoring data indicates the need to expand the monitoring program.

G. MISCELLANEOUS REPORTING

1. Within 90 days after the completion of filling of any cell of the disposal area as described in the site and landfill operations report for Berkeley Landfill dated October 10, 1975, submit documentation signed by a registered engineer or a certified engineering geologist that the exterior surfaces of these newly completed cells are covered and graded to properly drain all rainwater and to prevent ponding.

2. Quarterly reports as required in Sections A, B, C, and F shall be submitted on January 15, April 15, July 15 and October 15 of each year.

I, Fred H. Dierker, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in the Regional Board Order No. 76-9.

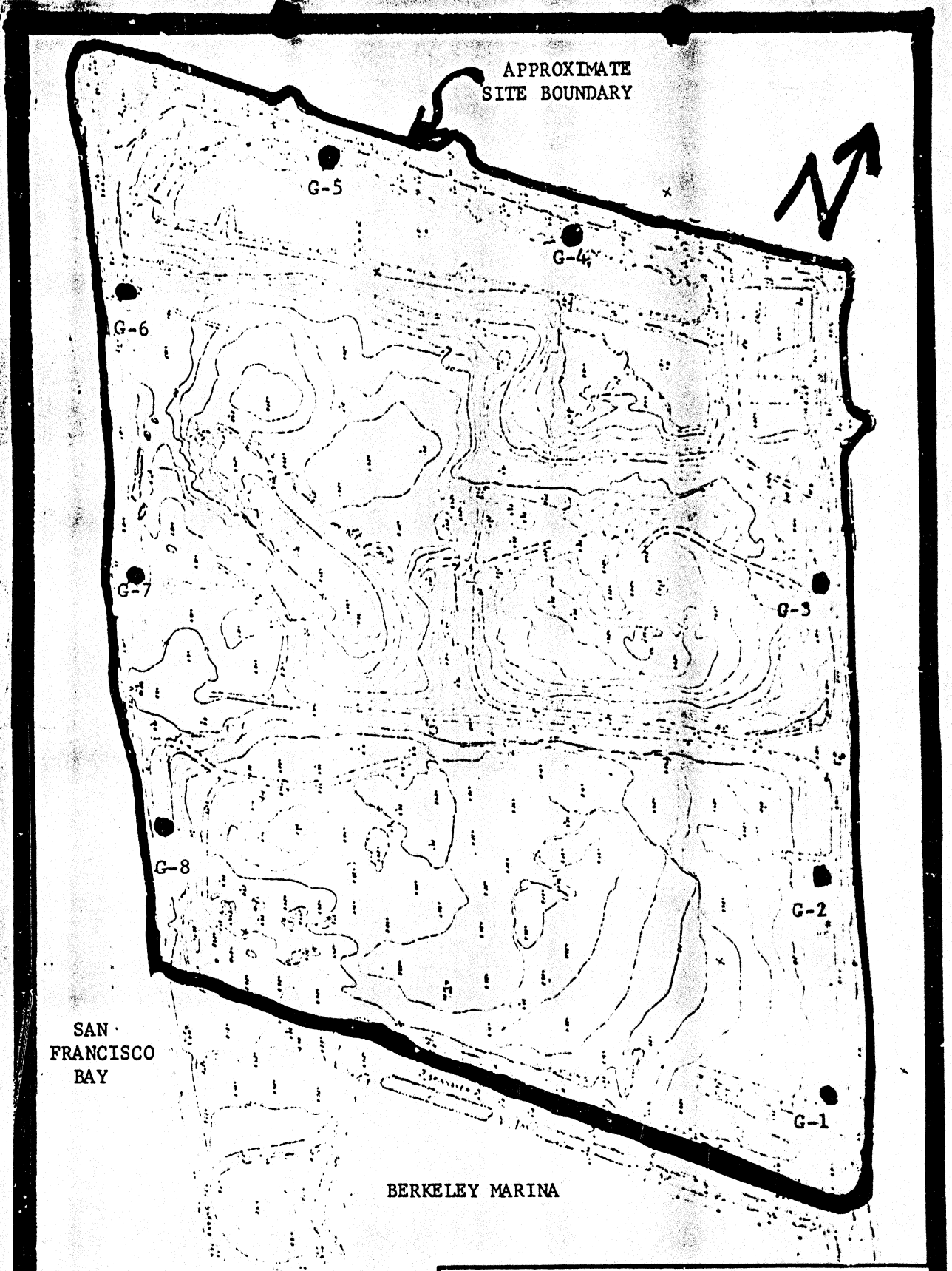
2. Is revised to be effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from either the Executive Officer or the discharger, and will be revised upon written agreement of the Executive Officer and the discharger.

FRED H. DIERKER
Executive Officer

Effective Date July 12, 1979

Attachment:
Map
Appendix B



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

CITY OF BERKELEY
CLASS II-2 SOLID WASTE DISPOSAL SITE
BERKELEY, ALAMEDA COUNTY

ATTACHMENT A